RESTORE OUR WATERS

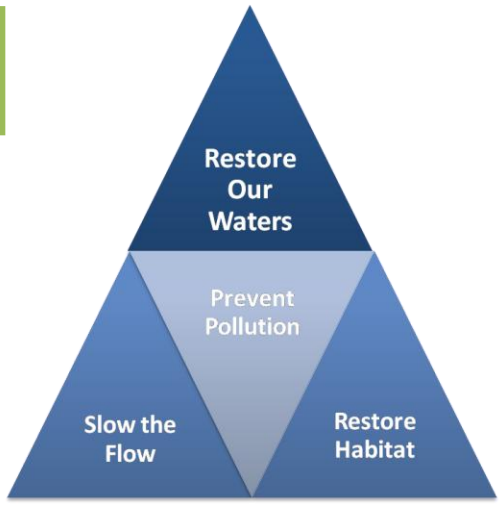
Healthy water for people and salmon

Restore Our Waters is the City of Seattle's commitment to take actions and promote partnerships that protect and improve our creeks, lakes, the Duwamish River and Puget Sound.

www.seattle.gov/util/RestoreOurWaters

Spring 2010

Leading with Science



How Do We Restore Our Waters?

The *Restore Our Waters Initiative* is intended to provide a science based approach for taking actions to improve the health of Seattle's urban watersheds.

Actions that can help include:

Slow the flow of stormwater - Slowing the speed and volume of rain water running off our streets, buildings, homes and driveways

Prevent Pollution - Minimizing the amount of oil, bacteria, soaps and sediments that rain collects as it runs off hard surfaces on the way to the nearest creek or water body

Restore Habitat - The quality of the trees, plants and in-water habitat provide the basis for wildlife to thrive

The City's projects and programs can ultimately protect and improve the health of Puget Sound if we consider these three issues when doing work. Restore Our Waters as a program looks at the breadth and depth of what needs to happen in order to engage the greater Seattle area - the planners, builders, organizers and individuals - so we are using science to create a common framework to restore and protect Puget Sound for now and future generations.

Puget Sound Starts Here.org

Ready, Set, Launch **- Puget Sound Starts Here**

What can one person do to make a difference for Puget Sound? That is the focus of the regional campaign called Puget Sound Starts Here. A flight of commercials that promote simple actions are set to go in April/May, so stay tuned. Each of us has an impact on the pollution that gets into stormwater, and we can help by taking care of what we do around our yard, car, pets and home. The interactive website has coupons and other incentives to help make it easier to do things to help Puget Sound. For more information and to get involved go to the website www.pugetsoundstartshere.org

Putting Projects in the Ground

How can street sweeping help restore our waters?

Seattle Public Utilities (SPU) is looking at starting a *Street Sweeping for Water Quality Program* in 2011 to reduce stormwater pollution from roadways. This proposal is being considered as part of the 2011/2012 rate process.

The program would be based on results from Seattle Public Utilities (SPU) Street Sweeping Pilot Study completed in 2009. The Pilot Study demonstrated the potential for cost-effective, significant pollutant load reductions using new, high efficiency street sweeping technology. This sweeper uses a vacuum to enhance collection of small particles. So instead of all that debris from our cars going into the water, we remove it at the source.

Seattle Department of Transportation's (SDOT) existing street sweeping program would be enhanced to significantly increase the amount of pollutants removed from roadways. The first phase would focus on using existing high efficiency sweepers on roadways that drain directly to urban waterways, and on increasing sweeping during the night on arterials and industrial streets, which are the highest pollutant generating roadways. This would happen in 2011 and 2012. During this two-year period, the cost-effectiveness and feasibility of further expanding the *Street Sweeping for Water Quality Program* would be evaluated.

By leveraging the City's existing street sweeping program we could deliver multiple benefits for a sustainable city including pollution prevention, reduced flooding, and a cleaner overall look for the neighborhood.

For more information on this program proposal visit our website

Ballard Roadside Raingardens aim to reduce Combined Sewer Overflows (CSOs)

Combined Sewer Systems exist in some areas of Seattle, and, unlike newer separated systems that keep stormwater (rain runoff) and wastewater apart, the older combined system collects sewage from homes and businesses with stormwater in a single pipe that flows to the wastewater treatment plant. Reducing CSOs is critical to restoring and preserving Seattle's waters because during heavy rains, the system overflows into nearby lakes or Puget Sound, spilling a mix of untreated rain and wastewater. Allowing more rain to soak into the soil and keeping it out of the pipes is a proven method of reducing CSOs.

Part of the Ballard neighborhood is in the Combined Sewer System, so Seattle Public Utilities has designed a project to reduce polluted overflows into the Ship Canal. Last November Gov. Chris Gregoire announced the award of $1.54 million in Federal Recovery Act funds for this project, and we are ready to break ground.

The Ballard Roadside Raingarden Project will install raingardens in the public right-of-way of 10 blocks in north Ballard. They will be constructed using specially designed soils that infiltrate and filter stormwater from the roadway, and then densely planted to help remove pollution and improve street-side landscaping. Neighbors have been involved with the design, and will have and an opportunity to help choose the plants and trees in front of their homes. Roadside rain gardens are effectively being used by the City of Portland and other cities. For more check out the website

Partnerships with Purpose

School Partnerships help bring the message home!

Stormwater pollution is a complicated problem and it requires complex solutions but some of the answers are pretty obvious. There are a lot of things that people can do at home to help like taking your car to a car wash or using organic garden products, but many people still don't know that the Puget Sound is in trouble or that they can help by making some easy changes. Seattle has been working with schools and school districts for many years to help get these messages home and now we have been awarded a grant from the Washington State Department of Ecology to help create similar program resources for the Puget Sound region.

- Public schools on the field trips averaged 37% Free and Reduced Lunch (FRL) (2009 Seattle public schools averaged 39% FRL at the elementary level)
- Teacher surveys before and after the fieldtrips indicate that student understanding of the three stormwater concepts increased 32%

The Restore Our Waters Urban Watershed field trip program provides an opportunity each year for nearly 2000 children to visit urban streams in local parks, extend and apply classroom curriculum, and learn about water quality and drainage in a natural setting. Programs are implemented through Seattle Parks' Environmental Learning Centers with funding from Seattle Public Utilities (SPU). These programs started in the early 1990s, at Carkeek Park, to provide context for Seattle schools raising salmon with the Washington Department of Fish and Wildlife's Salmon in the Classroom Program. The field trip is full of activities and games that teach about stormwater and is designed with support from Seattle Public Schools' (SPS) Science Resource staff to reinforce classroom curriculum. An adult-child interview provided as a homework assignment spreads the information from the field trip experience to the adult community.

The grant pulls together a unique new partnership of municipalities and school districts in the urban I-5 corridor of Puget Sound: City of Seattle, Seattle Public Schools, Everett School District and the City of Tacoma. Four curriculum extension modules will be created and piloted by the partners: a video for classroom use, a home extension to disseminate the video content to the adult community, a field exploration module and a community service module.

For more information contact: Beth Miller, Stormwater Outreach and Education, Restore Our Waters

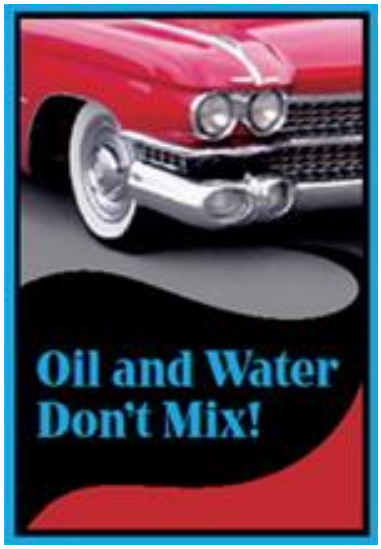
Do Salmon Grow in Trees?

We say yes, and to support this idea, we are building stronger ties between the Green Seattle Partnership (GSP) and Restore Our Waters. The work of GSP to restore habitat and native vegetation helps slow stormwater and filter out pollutants. Since many of our parks and green spaces are home to urban waterways, the work of GSP Forest Stewards and volunteers keeps our urban forest as healthy as possible for wildlife and fish. After all, these waterways are both functioning parts of the Puget Sound ecosystem – and our city's drainage system. That is a paradigm we face in an urban, built environment.

Partnerships are about sharing resources – knowledge, innovation, people and tools. Many city departments support the work of GSP, in particular the Office of Sustainbility and Environment, Seattle Parks & Recreation and Seattle Public Utilities. These agencies are active partners in supporting GSP efforts because we need to balance the provision of an adequate drainage system for residents while protecting the environment. These agencies help with staff and resources, including scientific and technical support, tools and information sharing; together, we roll up our sleeves so that restoration efforts are effective. The reality of our built environment puts pressure on these natural areas, which is our legacy to protect.

In the upcoming year, Restore Our Waters will continue to partner with GSP and support efforts to reaching its goals. In this way, our shared vision of a sustainable city will continue to come to life!

Engaging the Public



Regular Car Care Makes a Difference

Our cars are a great place to take meaningful action to protect Puget Sound. Oil, grease and dirt from our cars are washed into the nearest waterway when it rains. So how do we get everyone to do their part when it comes to their own car? Seattle Public Utilities Automotive Care Program is just getting started and offering coupons to make it easier to keep your car clean and in good running order. You can find out more on the website www.seattle.gov/util/cartips and in your June/July Utility Bill newsletter @ Your Service.

"Whys" and "Ways" to be Rainwise

When the land that is present day Seattle was a forest, falling rain was slowed by needles and leaves, and slowly soaked into spongy soils held together by the roots of trees and understory plants.

Now, rain that falls on our roofs, roads, driveways and compacted soils collects quickly, and then runs off through ditches and pipes. During big rain storms this stormwater can back up and flood homes, cause sewer overflows, and erode hillsides and stream banks. It also carries dirt, oil and metals from cars, lawn chemicals, cleaners and pet waste into Seattle's salmon- spawning streams and swimming beaches.

We can all help to slow and clean the rain runoff from our homes with simple projects that are useful and attractive additions to our yards. To help make this easier, Seattle recently launched a unique website called Rainwise Tools - http://rainwise.seattle.gov Find out where your home fits into the watershed, how much rain you can save, and what you can do. In addition, it offers a marketplace for you to find out what businesses and contractors are available to help.

We can all slow the flow and help to clean the rain runoff by taking simple steps that make our home landscapes act more like a forest. For example, you can redirect stormwater from your roof to flow into a rain garden or a compost enhanced landscape instead of a local street or sewer.

Check out more ways to ***Slow it, Spread it, Filter it, and Soak it in*** by selecting a solution based on runoff from your roof, paved, or yard areas.

City Walks the Talk

What is Green Stormwater Infrastructure?

What does Green Stormwater Infrastructure (GSI) mean? Let's start by looking at how we traditionally manage stormwater – using infrastructure – like pipes, vaults and other conventional "grey" solutions. Today, we are looking at "green" solution, such as the use of engineered soils, trees, plants and permeable pavement to help manage stormwater. As a part of Seattle's updated Stormwater Code, evaluation of these techniques is now required for most development.

GSI has multiple environmental benefits including helping the health of our water bodies by slowing the flow of stormwater and

improving water quality. These techniques can also help us to adapt to the uncertainty that climate change is bringing by providing more areas for rain water to soak into the landscape.

These relatively new ways of addressing stormwater runoff will require continued research and monitoring to help make them standard practice. Restore Our Waters is planning to hold a Forum to gather watershed advocates, neighborhood groups and the building community to look at our common goal for Puget Sound restoration, and how we can work together to provide GSI incentives and expertise to realize our shared vision for a sustainable city. For more information about GSI visit the website.

Website references from e-news complete urls below:

Street Sweeping:
http://www.seattle.gov/util/Services/Drainage_&_Sewer/Keep_Water_Safe_&_Clean/Street_Sweep_Project/QuestionsAnswers/

Ballard Roadside Raingardens:
http://www.seattle.gov/util/About_SPU/Drainage_&_Sewer_System/Plans/CombinedSewerOverflowReductionPlan/BallardRoadsideRaingardens/

Green Stormwater Infrastructure
http://www.seattle.gov/util/About_SPU/Drainage_&_Sewer_System/GreenStormwaterInfrastructure/index.htm

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www.seattle.gov/util/RestoreOurWaters